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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/374,079	08/12/1999	TRACY D. HARMER	TI-27445	3296

23494 7590 01/10/2002

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EXAMINER

BAKER, STEPHEN M

ART UNIT PAPER NUMBER

2133

DATE MAILED: 01/10/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/374,079

Applicant(s)

HARMER ET AL.

Examiner

Stephen M. Baker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☒ Claim(s) 26 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3-8, 12-15 and 19-22 are rejected under 35 U.S.C. 102(a) as being anticipated by U.S. Patent No. 6,223,321 to Nasu *et al.* ("Nasu").

Nasu shows a computer system (Fig. 2) including a "host computer having a CPU" (10) and a floppy-disk "mass storage device" (G) having "at least some ECC hardware" (3, 6) associated therewith for a first level of ECC. The host computer (10) requires a "device driver comprising software instructions for execution by said CPU for performing at least some ECC instructions on data read from said mass storage device" in order to perform second-level C2 ECC decoding and data correction.

Regarding claim 3, the host (10) presumably corrects the data in host RAM.

Regarding claims 5-7, 12-14, and 19-21, in another embodiment (Fig. 1) a non-zero C2 syndrome serves as an "error flag" sent to the host (10), and the C2 syndrome provides "integrity determination information" and "error location information" to the host.

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3. Claims 1-8, 11-16 and 19-23 are rejected under 35 U.S.C. 102(a) as being anticipated by U.S. Patent No. 6,192,492 to Masiewicz *et al.* ("Masiewicz").

Masiewicz shows a computer system (Fig. 1A) including a "host computer having a CPU" (102) and a hard-disk "mass storage device" (105) having "at least some ECC hardware" associated therewith for a first level of ECC. The host computer (102) requires a "device driver comprising software instructions for execution by said CPU for performing at least some ECC instructions on data read from said mass storage device" in order to perform SCSI-bus ECC decoding and data correction.

Regarding claim 3, the host (10) presumably corrects the data in the host RAM (107).

Regarding claims 5-7, 12-15 and 19-22, in another embodiment (Fig. 1) a SCSI-bus syndrome serves as an "error flag" sent to the host (102), and the syndrome provides "integrity determination information" and "error location information" to the host.

Regarding claims 11, 16 and 23, as Masiewicz's version of the SCSI protocol is an extension of earlier SCSI protocol versions, the required driver can be said to include a "device driver extension".

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9, 10, 17, 18, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nasu.

Nasu doesn't specify that the SCSI disk driver is in the system BIOS. Official notice is given that advantages of placing a floppy disk driver in BIOS memory to enable booting from a floppy disk were well known at the time the invention was made. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to implement Nasu's system with the host-resident ECC driver placed in BIOS. Such an implementation would have been obvious because advantages of placing a floppy disk driver in BIOS memory to enable booting from a floppy disk were well known at the time the invention was made.

Further regarding claims 10, 18 and 25, a driver "expansion" in comparison with Nasu's prior art (Fig. 3) driver requirements is apparently required.

Allowable Subject Matter

6. Claim 26 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

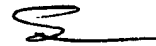
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Baker whose telephone number is (703) 746-7240. The examiner can normally be reached on Monday-Friday (11:00 AM - 7:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on (703) 305-9595. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800.



Stephen M. Baker
Primary Examiner
Art Unit 2133

smb
January 8, 2002